

Early Head Start University Partnership Grants: Buffering Children from Toxic Stress, Research Grantees

New York University

Project Title: The Playing and Learning Strategies (PALS) Intervention in Early Head Start Programs: Reducing the Effects of Toxic Stress for Children in Poverty

Principal Investigator: Clancy Blair

Co-Principal Investigator: Cybele Raver

Project Funding Years: 2011 – 2016

Project Abstract: The primary purpose of this study is to implement an evidence-based parenting intervention, Playing and Learning Strategies (PALS) to evaluate the role of parenting quality in buffering children from toxic stress associated with poverty. Specifically, the project will: (1) measure young children's exposure to 15 indicators of poverty related hazards, constituting "toxic stress" and determine the extent to which exposure to these dimensions are associated with lower levels of parenting quality and elevated levels of stress physiology biomarkers for children; (2) implement the ABC parenting intervention and document how the intervention can be adapted and implemented within existing EHS activities; and (3) evaluate the efficacy of the PALS parenting intervention. For the third goal, families will be randomly assigned to either (1) home-visiting services where they will receive 14 weeks of intervention in addition to regularly delivered services or to a (2) 'business as usual' control condition. Results from this study are expected to advance applied developmental neuroscience and contribute to the field's knowledge base regarding the role of Early Head Start in supporting parenting and buffering children from the effects of toxic stress.

Sample:

- 160 low-income families enrolled in 7 EHS programs in New York City
- 80 moderate to higher income children and families

Proposed Measures: Material, Psychosocial and Neighborhood Measures (15 indicators from parental survey, observer report and 2010 U.S. Census data)

- Income-to-need calculations
- Economic need and economic sufficiency: Economic Strain Questionnaire
- Employment status
- Maternal and paternal level of educational attainment
- Economic safety
- Use of public assistance
- Adult exit and entrance from the household
- Maternal psychological distress: Center for Epidemiologic Studies Depression Scale (CES-D Scale)
- Parenting Stress Index – Short Form

- Family exposure to substandard housing quality
- Neighborhood violence crime victimization
- Proportion of female headed households with children
- Rate of adult unemployment

Parent-Child Interaction:

- Mothers' sensitivity, detachment, intrusiveness, positive regard, negative regard, stimulation and animation in interaction with the child (using the Three-bag observation assessment)

Child Measures:

- Allostatic Load (saliva samples, electrocardiogram (ECG) data)
- Child Reactivity and Regulation to fear evoking mask and frustration eliciting toy removal tasks
- Self-regulation: effortful control
- Infant Behavior Record
- Preschool Self-Regulation Assessment
- Infant Behavior Questionnaire
- Children's Behavior Questionnaire

University of Colorado Denver

Project Title: An Evaluation of Parent Child Interaction Therapy and the Emotional Availability Intervention: Mitigating Toxic Stress among American Indian Children in Early Head Start

Principal Investigator: Michelle Sarche

Co-Principal Investigator: Misty Boyd

Project Funding Years: 2011 – 2016

Project Abstract: The University of Colorado- Anschutz Medical Campus in partnership with a tribal Early Head Start and behavioral health program program will evaluate Parent-Child Interaction Therapy Intervention (PCIT) and the Emotional Availability Caregiver Intervention (EAI) to better understand the relationship between major environmental stressors and American Indian children's early development. Specifically, the project will: (1) examine the nature, extent and developmental course of environmental stressors among American Indian children between the ages of 10 and 48 months and explore hair cortisol as a marker of toxic stress; (2) implement PCIT with and without an EAI enhancement in a tribal behavioral health setting to serve American Indian children and families enrolled in Early Head Start; and (3) test the effectiveness of PCIT with and without EAI enhancement for decreasing the chronic stress response among children and their caregivers, increasing caregiver sensitivity, and decreasing behavior problems among children experiencing environmental stressors. The study will yield information about environmental stressors for American Indian children and their impact on development, and establish an evidence base for parenting interventions that may buffer children from the impact of stressors.

Sample: 216 children in 27 classrooms at 8 sites at a tribal Early Head Start program

Child Measures

- Infant Toddler Social Emotional Assessment
- Eyberg Child Behavior Inventory
- Hair cortisol
- Child Health and Development Questionnaire
- Sleep and Nap Routines Questionnaire
- Early Head Start Services Questionnaire

Parent/Caregiver Measures

- Household Demographic Survey
- Center for Epidemiological Studies Depression Scale
- Generalized Anxiety Disorder Scale
- Parent and Family Health Survey
- Hair Cortisol
- Adverse Childhood Experiences Survey
- Parent and Family Stress Survey
- Whitbeck Historical Trauma Scale
- American Indian Cultural Beliefs and Practices Survey
- Social Support Survey
- Community and Neighborhood Questionnaire
- Therapy Attitude Inventory

Parent/Caregiver-Child Relationship Measures

- Emotional Availability Assessment Scales
- Parenting Stress Index
- Dyadic Parent-Child Interaction Coding System

University of Delaware

Project Title: Starting at Home: Incorporating a Parent-Child Interaction Intervention into Early Head Start Home Visiting

Principal Investigator: Jason Hustedt

Co-Principal Investigators: Rena Hallam Myae Han Jennifer Vu

Project Funding Years: 2011 – 2016

Project Abstract: The purpose of this project is to incorporate the Promoting First Relationships (PFR) parenting intervention for use in the home visiting components of Early Head Start (EHS) home- and center-based models. This project will be conducted in collaboration with a multi-site EHS program serving both urban and suburban populations, comprised of African-American, Latino, and Caucasian families, and providing both center- and home-based programs in the state of Delaware. The project will examine: (1) the role that toxic stress plays in the lives of children and families served by a large EHS program, (2) how the PFR intervention can be implemented in the context of these existing home- and

center-based EHS programs, and (3) the effectiveness of the PFR intervention in buffering EHS children from toxic stress. Results are expected to identify impacts of the PFR intervention for parents and children and will be used to make recommendations about maintenance and sustainability of this intervention model in EHS programs.

Sample: Approximately 300 EHS children and families

Measures: Risk Factors for Toxic Stress

- Parent demographic survey
- Stress reactivity (e.g., cortisol measurements)
- Generalized Anxiety Disorder (GAD-7) scale
- CAGE-Adapted to Include Drugs (CAGE-AID)
- Parenting Stress Index: Short Form (PSI/SF)

Child Measures

- Battelle Development Inventory, Second Edition (BDI-2)
- Brief Infant-Toddler Social and Emotional Assessment (BITSEA)
- Early Childhood Behavior Questionnaire - Very Short Form (ECBQ-VSF)
- Infant Behavior Questionnaire - Revised - Very Short Form (IBQ-R-VSF)

Family Measures

- Three-Bag Observational Assessment

University of Denver

Project Title: A Microsocial Video-Coaching Intervention for Toxically Stressed EHS Families

Principal Investigator: Sarah Watamura

Co-Investigators: Phillip Fisher Amanda Moreno

Project Funding Years: 2011 – 2016

Project Abstract: This study seeks to understand how toxic stress leads to psychological and physical health problems and identify ways to buffer children enrolled in Early Head Start (EHS) from such stressors. Specifically, the project has the following objectives: (1) identify families at risk for dysregulated stress physiology as a function of toxic stress exposure, (2) implement the preventative intervention Filming Interactions to Nurture Development (FIND) to improve child's well being, (3) assess the effectiveness of the intervention's implementation, and (4) assess the effectiveness of the FIND and the FIND plus Parent Focused Support (PFS) interventions. Families will be randomly assigned to one of three conditions: (1) EHS standard supports; (2) EHS standard supports plus FIND, a microsocial video-feedback intervention; or (3) EHS standard supports plus FIND with a parent-focused mental health support module (FIND+PFS). The project includes careful attention to factors influencing implementation success and aims to create a fully scalable intervention. Results are expected to determine whether interventions targeted at parenting in general, and caregiver sensitivity in particular, among toxically stressed EHS families improve child development outcomes.

Sample: 360 EHS families

Proposed Measures:

Goal 1 Measures of Toxic Stress

- Demographic Risk Screening Measure
- Family Finances Questionnaire
- Adverse Childhood Experiences Study' Family Health History Questionnaire
- Psychosocial Risk Screening Measure
- Adverse Childhood Experiences Study' Family Health History Questionnaire
- Collection of Child Diurnal Cortisol

Goal 2 Measures: Implementation Effectiveness Surveys, interviews and focus groups to evaluate constructs such as:

- Dosage, content, and fidelity of services as delivered
- Parents' and therapists' perceptions of satisfaction and barriers

Goal 3 Measures: Caregivers

- Brief Symptom Inventory
- Parent Daily Report
- Parenting Behavior During Dyadic Interactions Presenting Challenges to the Child
- Parent diurnal and stress reactive cortisol
- Three-bag observational assessment

Goal 3 Measures: Child

- Infant Toddler Social Emotional Assessment
- Child Behavior During Dyadic Interactions Presenting Challenges to the Child
- Child diurnal and stress reactive cortisol

University of Maryland School of Social Work

Project Title: Buffering Children from Toxic Stress through Attachment-Based Intervention: An Early Head Start-University Partnership

Principal Investigator: Lisa Berlin

Co-Principal Investigator: Brenda Jones Harden

Project Funding Years: 2011 – 2016

Project Abstract: The project is being conducted in collaboration with four Early Head Start programs in the greater Washington, DC area that serve predominantly new immigrant Latino families. Together we are conducting a randomized trial of home-based Early Head Start services with and without a supplemental, attachment-based parenting program, Dozier's "Attachment and Biobehavioral Catch-up" (ABC) intervention. There are three key goals: (1) define criteria for identifying EHS families at risk for experiencing toxic stress and validate these criteria empirically; (2) evaluate through a randomized trial the

efficacy and “value added” of supplementing EHS services with the ABC program; (3) evaluate the implementation and sustainability of the ABC program within the EHS context, and the linkages between implementation characteristics and program impacts. The study’s findings will advance the knowledge of how EHS can increase support for early parenting and thus buffer infants and toddlers from toxic stress.

Sample:

- 270 EHS families with 6- to 18- month old children from 4 EHS programs in Washington, DC and suburban Maryland: (180 families identified as high-risk for toxic stress, 90 randomly assigned to the intervention group [EHS + ABC]; 90 randomly assigned to the control group [EHS + “Book of the Week”]; 90 families identified as lower-risk for toxic stress)

Measures: Parenting Behavior Measures

- Infant and Toddler version of the Home Observation for Measure of the Environment (IT HOME)
- The Three Bag semi-structured assessment of parent-child interaction
- Parent-Child Conflict Tactics Scale

Infant Measures

- Bayley Infant Neurodevelopment Screener (BINS)
- Brief Infant Toddler Social Emotional Assessment (BITSEA)
- Observed affective expression and regulation
- Salivary cortisol
- Heart rate

Implementation Measures

- Dose of EHS and ABC visits
- Fidelity ratings according to ABC *In-the-Moment* coding scheme
- Working Alliance Inventory (WAI)
- Focus groups and qualitative interviews: perceptions of EHS and ABC service delivery, program effectiveness, and relationships among staff and between staff and families; EHS program partner acceptance, and conditions necessary for implementing ABC in the EHS context
- Record reviews: intervention fidelity, intervention format and content, participant engagement, staff-participant relationships, and how the intervention is adapted within the EHS program
- Systematic observations: duration, level of engagement, and content of the interactions between the interventionist and mother

Washington University

Project Title: Buffering Toxic Stress: Novel Application of Intensive Group-based Parent Training

Principal Investigator: John N. Constantino

Project Funding Years: 2011 – 2016

Project Abstract: The study will determine if a parenting intervention, an adaptation of the Incredible Years Toddler program, can buffer high-risk children in Early Head Start (EHS) from toxic stress and its consequences by fostering supportive and responsive care giving. Specifically the study will determine: (1) the efficacy of the proposed intervention; (2) how a range of variables relate to the occurrence of toxic levels of stress within the EHS population; and (3) whether the intervention buffers children from toxic stress and/or its consequences. Families will be randomly assigned to either a “treatment as usual” control group or an intervention group whereby bi-weekly socialization visits are replaced with an intensive adaptation of The Incredible Years Toddler Program over a period of 6 months. Results are expected to generate implementation data and possible validation of the Incredible Years Toddler program with respect to reducing toxic stress, and to improve the field’s understanding of how toxic stress occurs and how it may be reduced. In addition, if the intervention is effective in reducing toxic stress, the study will offer EHS programs a supplemental means of supporting emotional and cognitive development among at-risk children.

Sample: 165 EHS toddlers, including 110 experimental subjects and 55 control subjects

Proposed Measures (Partial Listing): Risk and Caregiving Measures

- Three-Bag Task Observational Assessment
- Family Interview for Genetic Studies (FIGS)
- Conflict Tactics Scales, Parent-Child Version (CTS-PC)
- Alcohol, Smoking and Substance Involvement Screening Test (ASSIST)
- Beck Depression Inventory — II (BDI-II)
- Parenting Stress Index — Long Version (PSI-Long)

Child Measures

- Ages and Stages Questionnaire (ASQ)
- Toddler Behavior Assessment Questionnaire (TBAQ-R)
- Child Behavior Checklist (CBCL)
- Cortisol Measures: Serial Hair and Salivary Assays
- State Administrative Data: Official-report child maltreatment (pending)
- Archiving of Biomaterials for Genotypic / Epigenetic Assays